

Message

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Sent: 10/1/2018 8:58:07 PM
To: Bergman, Erica [Erica.Bergman@dep.nj.gov]
CC: Lee.Lippincott@dep.nj.gov; Lindstrom, Andrew [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=04bf7cf26aa44ce29763fbc1c1b2338e-Lindstrom, Andrew]
Subject: MS/MS method for perfluoro polyethers
Attachments: 181001 Polyether MSMS Method.xlsx

Hi Erica,

I was reflecting on our presentation last week on legacy and novel PFASs in NJ samples, and thought this potentially could be helpful to NJDEP:

As we described, we used non-targeted, high-resolution mass spectrometry to identify tentatively a family of unusual PFASs in the samples you sent us, chloro perfluoro polyether carboxylates, which we suspect are related to Solvay.

I think I failed to mention that we developed a rudimentary LC/MS/MS method for detecting all nine of the congeners that we observed in the soil and vegetation samples. I thought this method might be useful for DEP because, if you have access to an LC/MS/MS in your laboratories, you might be able to investigate these compounds yourselves. This might help liberate you from depending on our pace.

In the attached spreadsheet, I summarized the MS/MS analytical parameters that I used on our Waters LC Quattro Premier MS/MS for the nine congeners we detected. In case you have another brand of MS/MS, I also include these MS/MS parameters for PFOA and PFNA, to serve as a comparative basis. You might remember we estimated concentrations in our presentation. In the absence of actual standards for these compounds, we did this using ¹³C₅-PFNA as a matrix internal standard, assuming these polyethers had the same instrument response as PFNA.

Andy Lindstrom mentioned that Lee Lippincott is a chemist working at DEP who might be interested in this, so I have copied Lee.

Let me know if you have any questions.

John Washington